## ABORIGINAL STONE ARTEFACTS FROM THE NORTHERN TERRITORY.

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This paper describes some aboriginal stone artefacts collected by the writer in May, 1951 from the Edith River, Northern Territory, an area from which such material has not hitherto been recorded. The Edith River rises in the great plateau east of the railway line, and joins the Ferguson River, a tributary of the Daly River. It is fed by percunial springs, ensuring a constant flow throughout the dry season, (Woolnough, 1912); during the wet period, however, it overflows its banks, flooding much of the surrounding country.

Evidence of aboriginal occupation on the low banks of one of its dry tributaries was indicated by the profusion of broken stone, flakes, cores and the presence of flaked hand-axes. The site is within a nule of Mt. Todd, which is 30 miles south-east of Pine Creek, and 110 miles due south-east of Darwin. The stone from which these artefacts were fashioned is a dense black fine-grained rock identified by Dr. D. E. Thomas, Chief Government Geologist of Victoria, as hornfels. Hard and somewhat brittle, it flakes readily, with a well defined conchoidal fracture. It was obtained from the pre-Cambrian country rock which outcrops in the bed of the Edith River in the form of water-worn boulders. Close to the confluence of this river with a dry tributary are several outcrops where stone has been quarried by the natives.

The collection of artefacts comprises numerous blades and flakes, two spoke-shaves, eighteen flaked and one edge-ground axe. Some of the flakes and blades are up to 120 mm. in length, and from 25 mm, to 55 mm, in width. All show portions of a flat striking platform and a well-defined bulb of percussion, the angle between the striking platform and the inner surface ranging from 100 to 110 degrees. Nine have median ridges (figs. 2, 4, and 5), and are triangular in cross-section; the inner surfaces are plain, with two plain facets on the outer surfaces, and edges more or less sharp. Some of the broader forms have three facets on the outer surface and are trapezoidal in cross-section. Some are lanceolate in shape, and taper from the base to the apex, others have the points broken off (figs. 4 and 5). Most could have functioned as knives, some as spear points. When allowance is made for the marked difference in the material used, they are similar in form to the quartzite knives and spearpoints described by Spencer and Gillen (1912) and made by the Warranmaga people of Central Australia. The edges show little secondary working, but are in some examples finely serrated, seemingly due to use in cutting and sawing hard objects. One leaf-shaped piece (fig. 1) 85 mm, in length, 40 mm, in width, and 15 mm, in thickness, shows definite secondary working along each side margin, and has the appearance of a pirri; the flaking however is more abrupt, and does not continue to the median ridge, and may have been caused by use in scraping. Another leaf-shaped flake is 65 mm, in length, 38 mm, in width at the basal end, with one margin trimmed, possibly by pressure flaking.

Very few examples of scraping tools were found. One large irregularly shaped piece illustrated in fig. 6 is 95 mm. long, 55 mm. wide, and 20 mm. thick; it has marginal trimming on the distal end and the two lateral margins (fig. 5) illustrate an end and side scraper.

Two pieces can be classed as spoke-shaves, evidently used for planing or scraping round wooden objects. One is a long flake-blade, triangular in cross section, 123 mm, long, 43 mm, wide, and 15 mm, high close to the base, tapering to a point. One margin has the original sharp edge, the other a concave edge, 65 mm, long, and 5 mm, deep, with the working edge continued to the distal end. The other example is a thicker flake-blade trapezoidal in cross section, 100 mm, long, 38 mm, wide, and 7 mm, thick. The concave scraping edge on one margin is 75 mm, long, and 4 mm, deep.

The flaked axes, numbering eighteen, fall into three groups. The first comprise those made from rectangular blocks of stone, from which large primary flakes have been expertly detached, reducing it to an ovate or pear-shaped form. Secondary trimming of the margin and particularly of one or both extremities has resulted in more or less sharp cutting edges. Fig. 7 represents this type—it weighs 21 oz., is 140 mm, in length, 80 mm, at its widest part, and 45 mm, in the middle. Viewed from the side, it is bilaterally symmetrical. Each end has a sharp cutting edge.

A modification of this type is illustrated in fig. 8. It has at one end portion of a flat striking platform and has been trimmed to a narrow cutting edge on the distal end.

A second group comprises implements made from massive flakes having one more or less plain surface from which the primary flaking has been effected. One end is trimmed from both faces to a cutting edge which is usually narrow. This type is bilaterally asymmetrical. One example (fig. 9) is almost a uniface implement, with trimming on one face but little on the other except at the cutting edge. It weighs 16 oz., and is 120 mm. in length, 85 mm. in width, and 200 mm. in thickness.

A third group comprises uniface axes made from massive flakes flat on one face and trimmed from this face only; and have sharp cutting edges on one or both ends. In only one case has a flat river pebble been used.

One edge ground axe was found, made from a dark-grey dioritic type of rock. The cutting edge is much damaged, through subsequent use as a hammer stone. Woolnough records diorite north of the Howley Mine near Brooks Creek, about 70 miles away, which is possibly the source of the stone used for this axe.

One axe sharpening stone was located close to the crossing of the Mt. Todd track, and the Edith River, east of the main highway. It is a large waterworn boulder of hornfels, about 24 in. long, 12 in. wide, and 8 in. deep, with two pronounced sharpening grooves.

It is impossible to say with any degree of certainty whether these flaked axes were hafted or used as hand axes. Some are almost identical in form with the well-known biface axes of the south-eastern portions of South Australia and the Western District of Victoria. Some of the biface axes of the Worora tribe of the north-west of Western Australia are said to have been used as hafted axes without grinding. A flaked axe head was given to the writer by a former resident of Wyndham, Western Australia, who stated that it was originally hafted, a fact confirmed by the presence of gum cement on it. It is a well-shaped axe, flaked from a block of hard stone, with a comparatively crude cutting edge. It weighs 20 ozs., is 128 mm. long, 75 mm. wide, and 43 mm. thick.

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## REFERENCES.

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